

## *Ex Parte* Comments of National Translator Association MB Docket No. 15-146 – White Space Devices

The National Translator Association (NTA) here supplements the record in this proceeding with *ex parte* comments. We note that on August 4, after the comment and reply comment periods for this docket had closed, Microsoft submitted an elaborate four-color presentation that seeks to recast the entire proceeding in new and different directions.<sup>1</sup> This is not how notice-and-comment rule making is supposed to work. In the process, the significant policy directions that they advocate have not been accorded the detailed airing and discussion they need. NTA is a non-profit service organization representing rural TV translator operators and the public they serve. We seek, as we have for the past 30 years, to preserve free over-the-air broadcast service to all the people of the United States.

### **Timing of the Rural-Broadband Paper is Problematic.**

At this time, the Commission, the affected industries and the public are just beginning to recognize the severe adverse effect of the TV spectrum repacking on Low

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<sup>1</sup> “A Rural Broadband Strategy: Connecting Rural American to New Opportunities,” Microsoft (2017), hereinafter Rural-Broadband Paper.

Power Television stations and Television Translators. With the new inventory of operating channels coming into view through full service TV facilities amendments, it is clear that sufficient spectrum will not be available in many areas for LPTV and TV Translators to survive through channel displacement. In many other isolated rural areas, there is lacking the economic base to make modifications in response to this unfunded mandate, and many stations will go dark. Carriers wishing to clear the bands they purchased and ready to begin service may notify incumbent broadcasters with 120-day notices to quit. Meanwhile the Commission has frozen displacement relief, and will not give translators the opportunity to apply for permanent substitute channels until after the full service TV redesign and re-allotment process is completed.

Into this situation, and well past the comment stage Microsoft has inserted itself with its broad vision of rural connectivity, largely implemented through “white spaces.” To bring this vision to reality, Microsoft is campaigning to ask for three channel reservations, including one in the TV band, and broad pro-active white space implementation rules.

Their initiative comes too late to inform bidding strategies of participants in the incentive auction. But in another sense, NTA strongly suggests, the initiative arrives way too early. To date the Commission has refused every request to quantify the effects of the repacking process on LPTV and TV Translators. Initially it did so from concern that the auction initiative might be slowed to some degree if these facts were known.

But now the auction is in the past, and the consequences are real, in the immediate future. The General Accountability Office has conducted a survey and reported its analysis, and from what we know these impacts will not be small. Until we can appraise the full scope of harm to existing Low Power broadcast services from changes already being implemented, this is not the time to retract more spectrum and make the impacts worse.

**We Still do Not Know Enough About How Much Spectrum is Needed for Unlicensed Services, and How Much Space is Actually Available.**

The Rural-Broadband Paper assets (p. 33) that:

. . . preserving a channel for white space technology nation-wide will not impact any full-power broadcaster. An analysis using the FCC's own software also demonstrates that preserving a TV white space channel in most markets is expected to have no impact on low-power TV stations, and a *de minimis* impact even in the few areas where there is any impact at all.

At NTA, where we are receiving calls daily from anguished TV Translator operators, and where state-wide service providers are struggling to find the channels they will need, these unsupported Microsoft claims seems wild and irresponsible. Certainly the claim by Microsoft that this initiative would have “no impact” in “most markets” – if it means anything – is cold comfort.

As a number of parties have pointed out Microsoft could have participated in the auction, but chose not to. Instead it seeks, through a white space set-aside, to be able to implement its plans with spectrum that it uses “free of charge.” But this points to a

larger question in the approach. If white space initiatives such as Microsoft's turn out to have a small pay-off in new service to the public, they cannot possibly be worth the threat they pose to existing, well established services by LPTVs or TV Translators. But, on the other hand, supposing these initiatives prove useful, there is no barrier to other firms jumping in. We could see the development of applications by multiple providers that demand more spectrum than is available under this white space model. The three channels of white space spectrum that Microsoft seeks to use barely would be sufficient to support moderately high speed data to a few users over wide distances. Such capacity would be hard pressed to support any kind of service among competitive providers. Under such a scenario, it would seem that a better approach would be to provide frequencies for new unlicensed uses in an area of the spectrum that is large enough to support broad, rather than limited, use by the public.

NTA never was comfortable with the term “white space.” It implies unused spectrum. But in fact, in a complex broadcast environment (made even more crowded through the repacking) all areas mutually affected by two or more licensed stations involve essential non-interference protection as well as areas where some level of new service is possible. Indeed this was one of the design principles of Low Power Television – finding place where facilities at low power could co-exist inside the full-service TV allotment grid. NTA submits, however, that white space technology as proposed is based on a core misconception about spectrum allocation. A white space

user searches through a data base and finds a location where it can operate, and with a simple notification it is permitted to do so – no license necessary. Presumably, the new entrant can determine that it will co-exist without harmful interference to the input or output channels of existing TV Translators. But in rural areas especially, in case of interference at the household level, it will be difficult if not impossible for an individual viewer to identify the source of the interference or know how to register a complaint.

Television translators have co-existed with full-service TV since 1956 with almost no record of complaints of destructive interference. From this might be taken the conclusion that a complaint-based system works well to assure clean, non-interfering operations. But that assumption would be wrong. A complaint based system will not adequately protect the public from interference caused by unlicensed operations. A new stage of detailed local testing in select areas, with peer review, would seem to be the bare minimum requirement, before such a service is implemented nation-wide. NTA would be pleased to suggest localities where such testing could be useful, and would willingly participate in such tests. NTA opposes implementation of white space without a fuller record of it in practice.

Microsoft requests that three channel be reserved for white space operations – one in the “duplex gap” between mobile uplink and downlink; one in Channel 37; and one in TV channels everywhere. NTA has no position on the proposed use of the first two channels. The third channel would be situated in the TV broadcast band. Microsoft

describes the spaces between full power TV stations as so-called “vacant channels.”

NTA does not know anyone else who calls these channels “vacant.” Currently they are occupied by 3,776 licensed UHF and VHF translator stations, and 1,968 licensed UHF and VHF Low Power TV stations (Broadcast Station Totals as of June 30, 2017). With the re-packing, far less space is going to be available among and between full service TV stations, and the scope of the contraction is only now becoming clearer. The set-aside of a single channel also may not be the most spectrally efficient approach, where such gaps as actually do exist are not necessarily concentrated in one, or only a few local channels.

**Proponents Have Not Justified the Reservation of a Single White Space Channel in Each Market.**

Microsoft has not justified the ear-marking of a single channel in each market (with the suggestion of even more in rural areas). It may be that their intention is to stake-out a special claim of right in the selected channel – now or later. In time they would be back to the Commission, stating that they cannot assure the comprehensive coverage they want unless given some kind of priority or protection in the chosen channels.

A better approach would be to say, if the service works as they claim, white space service providers can use it on all channels, on a non-interference basis (of course with a registry, and notification when the provider activates service). They would be required

to give way to new or changed facilities of broadcast incumbents in those channels, including LPTV and TV Translators. In relation to those incumbents they would have a “tertiary” spectrum priority. If Microsoft and other proponents are unable or unwilling to make this concession, then their claim for a third channel will be revealed as a disguised re-allotment plan.

**Conclusion.**

NTA recognizes the acute need of rural areas to overcome the “digital divide” and have access to high speed internet on a par with urban areas. But that goal, worthy as it is, cannot justify the displacement or destruction of established free over-the-air TV broadcast service. That would be true if even a portion of the broad claims for new service from the incentive auction are realized in practice, as the auction winners proceed with their plans. We will have to wait and see, but the incentive auction was accompanied by a generalized promise of new service that will come to the fore nationwide. We all should be hopeful, and vested first in the success of that ambitious plan.

Respectfully submitted,

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August 22, 2017.